

F.M. Radio Remote Control Systems

Transmitter and Receiver Modules 'Radiometrix'



Transmitter



Receiver

Pin spacing = 2.54, PCB hole dia. = 0.7

- Transmission distance up to 200 metres
- Analogue and digital input/outputs
- 433MHz SAW controlled wide band FM transmission
- 10Kbps data bandwidth
- Small size, PCB mounting SIL package
- Range up to 200 metres (300 metres 433MHz)

The Radiometrix radio transmitter and receiver modules are self contained, PCB mounting and capable of transferring analogue and digital data up to a distance of 200 metres. The modules are suitable for general purpose telemetry and remote control applications where small size and high data rates are required. Typical applications include domestic and commercial security, lighting control, garage door openers, remote control and access control.

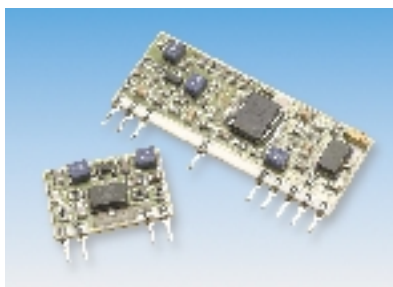
Transmitter		Receiver	
Supply voltage	6 to 9V dc	Supply voltage	4.5 to 9V dc
Current consumption	6mA @ 6V, 14mA @ 12V	Current consumption	14mA typical
Radiated power (ERP)	Vcc = 6V - 10dBm typical Vcc = 9V - 8dBm typical Vcc = 12V - 6dBm typical	Frequency	433MHz
Frequency	433MHz	Range	Up to 200 metres (300 metres 433 MHz)
Range	Up to 200 metres	Operating temperature	-10°C to +55°C
Operating temperature	-10°C to +55°C		
Licence	DTI approved to MPT 1340		

Note: 433MHz Frequency is now open to any telemetry application in the UK and Europe

SSW135X

	Operating Frequency	Order Code	Price Each			
			1+	5+	10+	25+
Transmitter	433MHz	676-597				
Receiver	433MHz	676-603				

FM 433MHz Telecontrolli Hybrid Tx/Rx Modules



- Range up to 250 metres
- CMOS/TTL input/output
- SIL package (AM compatible)
- No adjustable components
- Very stable operating frequency
- Temp range -25°C - +85°C

Transmitter		Receiver	
● Wide operating voltage (2.7-14V)	● Low current consumption (Typ 8mA)	● Single operating voltage (5V)	● Low current consumption (Typ 5.5mA)

The Telecontrolli FM hybrid transmitter and receiver modules provide a simple to use RF data link at up to 9.6KHz from any standard CMOS/TTL source.

The modules are very simple to operate and offer low current consumption (typ. 8mA). Data can be supplied directly from a microprocessor or encoding device, thus keeping the component count down and ensuring a low hardware cost.

The module exhibits extremely stable electronic characteristics due to the use of 'Thick-Film' hybrid technology, which uses no adjustable components and ensures very reliable operation.

Transmitter		Receiver	
Supply voltage	2.5 - 14V	Supply voltage	5V
Supply current	8mA	Supply current	5.5mA
Frequency	433.92MHz	Frequency	433.92MHz
Radiated power	10mW	Radiated power	N/A
Temperature	-25°C - +80°C	Temperature	-25°C - +80°C
Dimensions	23 x 11.5 x 4mm	Dimensions	38 x 15 x 4mm
Sensitivity	N/A	Sensitivity	typ -94dBm
Max data rate	9.6bps	Max data rate	9.6bps
EMC	ETSI 300/220		

SSW398

Mfrs. List No.	Order Code	Price Each		
		1+	5+	10+
FM-RFT3-433	352-4358			
FM-RRF1-433A	352-4360			

Transmitter and Receiver Modules 2nd Generation 'Radiometrix'



Transmitter L = 32, W = 12, D = 4
Receiver L = 48, W = 22, D = 4

- Plug-in compatible with 503-370, 503-381, 676-597 and 676-603
- Usable range to 300 metres
- Data rates to 14Kbps
- Conforms to **ETS300-339**
- Fully screened
- Applications include:- OEM remote control systems, radio data communications, Alarm system and access control

Second generation Radiometrix transmitters and receivers. They are direct plug-in replacement for the existing transmitter modules. The benefits include, higher data rate, improved EMC characteristics, thinner mechanical package.

	Transmitter	Receiver
Supply voltage	5V dc	5V dc
Current consumption	2.5mA	13mA
Frequency/Power	433MHz @ 10mW	433MHz
Max. data rate	14Kbps	14Kbps
RF Sensitivity	—	-105dBm (typically)
Operating temperature	-25°C to +85°C	-25°C to +85°C

Note: 433MHz frequency is now open to any telemetry application in the UK and Europe

SSW340

	Operating Frequency	Order Code	Price Each			
			1+	5+	10+	25+
Transmitter	433MHz	722-4953				
Receiver	433MHz	722-4965				

433MHz FM Radio Transmitter and Receiver



- Miniature SIL package
- Fully shielded
- Data rates up to 15Kbits/s
- Range up to 400 metres
- Single supply voltage
- Industry pin compatible

- QFMT5-434
- Temp range -20°C - +55°C
- No adjustable components
- Good shock resistance

- QFMR5-434
- High sensitivity
- Analogue, digital outputs
- Signal strength output (RSSI)
- Single conversion FM super-het



These modules are compatible with:

676-597	676-603	722-4953	722-4965
FM-TX1-433	FM-RX1-433A	FM-TX2-433	FM-RX2-433A-5V

The QFMT5 and QFMR5 data link modules are miniature UHF radio modules which enable the implementation of a simple telemetry link up to 400 metres, and at data rates of up to 15Kbits/s.

The QFMT5 and QFMR5 modules will suit one-to-one and multi-node wireless links in applications including building and car security, remote industrial process monitoring and computer networking. Because of its small size and low power requirements, these modules are ideal for use in portable battery powered wireless applications.

	Transmitter	Receiver
Supply voltage	3 - 5.5V	5V
Supply current	12mA (max)	6mA
Frequency	433.92MHz	433.92MHz
Radiated power	10mW	N/A
Temperature	-25°C - +80°C	-25°C - +80°C
Dimensions	31 x 13 x 4mm	49 x 21 x 4mm
Sensitivity	N/A	typ -107dBm

SSW401

Mfrs. List No.	Order Code	Price Each		
		1+	5+	10+
QFMT5-433	352-4371			
QFMR5-433	352-4383			

F.M. Transceiver 'Radiometrix'



H = 23, W = 34, D = 12 (with pins)
pins spacing 2.54
recommended PCB hole dia. 1.2

- Half duplex data transmission at speeds up to 40 Kbit/s
- Fast power up enable (1ms) for duty cycle power saving
- CMOS/TTL user interface
- On board data slicer, supply switches and antenna changeover
- **ETS300-339 (CE)** tested
- For European use on 433.92MHz
- Applications include: computer networks, laptop - PC - Printer links, high integrity wirefree fire/security alarms, building environment control/monitoring, remote meter-reading

Supplied in a miniature PCB mounting module this FM Radiometrix Transceiver implements a Bi-directional short range radio data link. The transceiver integrates a low power UHF FM transmitter and matching superhet receiver together with data recovery and TX/RX changeover make the transceiver ideal for high integrity one to one links or multi-node patch switch networks.